## **Grassed Waterway**

412 Acre

Annendix 1c - Plant	ing rates for drill or b	roado	226	t c	عوطا	na a	nd o	snri	aai	na i	n Teyas	<b>7</b> 0	ne	2	M	ΙR	Δ's 83Δ and 83B
<u> Аррениіх то - Ріані</u>	The rates for drill or b	seed			A	daptati Res		Majo	or Lar		Seeding Guidance	A	dap	ted	Plan Group	nts	A S OSA allu OSB
Name	Variety	Seeding rates are pounds pure live (PLS) per acre 3/, 4/	Native (N) or Introduced (I)	Season of growth	Northern Rio Grande Plain 838 Western Rio Grande Plain 83B						Maximum Seeding Dates 5/	Coarse	Moderately Coarse	Moderatery Coarse	Moderately Fine	Fine	Comments
PERENNIAL GRASSES 1/, 2/						•		•			•						
Bermudagrass	Cheyenne	10.0	I	W							2/1 - 5/15	9/ >	( )	( )	ΧХ		
Bermudagrass: hulled	common	2.3			хх						2/1 - 5/15	9/ >	( )	( )	ΧХ		
Bermudagrass: unhulled	common	3.0	1	W	хх						2/1 - 5/15	9/ >	( )	<b>(</b> )	ΧX		
Bermudagrass: Seeded	Giant	3.0	l l	W	x x						2/1 - 5/15	9/ >	<b>(</b> )	< >	ΧX		
Bermudagrass: Sprigged	Alicia, Brazos, Callie, Coastal, Coast-Cross I, Jiggs, Guymon, Grazer, Midland, Tifton 44, Tifton 68, Tifton 78, Tifton 85, World Feeder	12 bu 7/	1	W	x x						2/1 - 5/15	9/ >	< >	× )	x x		Cover depth is one to three inches. Callie and Coast-Cross 1 susceptible to freeze damage. Winter hardiness of Jiggs and Tifton 85 not fully determined.
Bermudagrass: tops	Alicia, Jiggs, Tifton 85	7 bales	1	w	x x						5/15 -6/15	>	<b>(</b> )	<b>(</b> )	x x		Tops must be at least 18" long with 6 nodes. Adequate moisture at planting is essential. Cover depth is one to three inches.
Bluestem: cane, silver		1.2	N	W	ХХ						2/1-5/15 9				ΧX		,
Diversions little	Cimmaron, Pastura,		<u> </u>	١,,,							0/4 5/45	, ,					
Bluestem: little Bluestem, yellow	native mix  Angleton, Australian, Caucasian, Gordo, King Ranch, Kleberg, Medio, Pretoria-90, T-587, WW-B Dahl				x x x x						2/1 - 5/15				x		
Bluestem, yellow	Ganada, Plains, WW Ironmaster, WW-Spar	1.8		W							2/1-5/15 9					Х	

	ng rates for drill or b					ptation	by M	lajor L	and.						J	
		seed				Resou	ırce A	reas					d Pl			
		×e s								Seeding	bу	Soil	l Gro	ups	8	
		e e		4	I m I	1 1		1 1	1 1	Guidance	6/	1 1	1 1			
		Seeding rates are pounds pure live (PLS) per acre 3/, 4/	Native (N) or Introduced (I)	Season of growing Northern Rio Grande Plain 83A	Western Rio Grande Plain 83B					Maximum Seeding Dates 5/	se	Moderately Coarse	-	Moderately Fine		
Name	Variety	See (PLS	Nativ	Nort	Wes					Ma	Coarse	Mode	Medium	ŏ Woŭ i	Fine	Comments
PERENNIAL GRASSES 1/, 2/ (Continued)															-	
Bristlegrass: plains 8/		3.0	N V	v x	Х	П			П	2/1-5/15 9/	Г	Х	Х	Х	Х	
Buffalograss burrs, treated		8.0				$\dagger \dagger$				2/1-5/15 9/	Ħ	Ħ		Х		
Buffalograss, dehulled		3.0								2/1- /15 9/			_		Х	
Buffelgrass burs	common, Nueces, Llano	2.0		V X						2/1- /15 9/		Х		Х		
Buffelgrass, grain	common, Nueces, Llano	1.0	_	v x						2/1-5/15 9/	1			х	ľ	
Bristlegrass: plains 8/	, ,	3.0								2/1-5/15 9/				Х	х	
Dropseed: sand		1.0								2/1 - 5/15 9/	Х	Х	-	Х		
Dropseed: tall		1.0								2/1 - 5/15 9/		Х		Х		
Eastern gamagrass	luka, luka IV, Pete	15.0								2/1-5/15 9/		Х		Х		Cover depth is 1/2 to 3/4 inches.
Eastern gamagrass	Jackson, local harvest	20.0								2/1-5/15 9/		Х		Х	Х	Cover depth is 1/2 to 3/4 inches.
False rhodesgrass		1.2	N V	V X	Х					2/1- 5/15 9/			Х	Х		Two-flower trichloris
False rhodesgrass: Multiflowered		1.2	N V	v x	х					2/1-5/15 9/		Х	х	Х	Х	Four-flower trichloris
Grama: sideoats	El Reno, Haskell, Niner, Uvalde	4.5								2/1 - 5/15 9/						
Green sprangletop		1.7								2/1 - 5/15 9/				Х	Χ	
Indiangrass: yellow	Cheyenne, Lometa	4.5								2/1 - 5/15 9/	Χ	Χ	_	Х	_	
Johnsongrass		10.0		V X						2/1 - 5/15 9/	Х	Χ		Х	Χ	Cover depth is 1/4 to 1/2 inches.
Kleingrass	Selection-75	1.5		V X						2/1- 5/15 9/		Χ	Χ	Х		
Kleingrass	Verde	1.7		V X						2/1- 5/15 9/		Χ		Х	Χ	
Lovegrass: weeping	common, Ermelo	1.5		V X	Х					2/1 - 5/15 9/	Х					
Lovegrass: Wilman	common, Palar	1.5		V X	Х					2/1 - 5/15 9/			Х	Х		
Lovegrass: sand, sandhill	common, Mason	1.5	NV	٧X						2/1 - 5/15 9/	Χ	Х	Х		T	

Appendix 1c - Plantii	ng rates for drill or b	roadca	st s	seedi	ng an	d spi	iggi	ng i	n Texas, Z	on	ie 2	2. N	/LR	RA's 83A and 83B
		pees		Ac	aptatio	n by Ma urce Ar		nd		Ad	dapt	ed Pl	ants	
		ive			. 1000		000		Seeding Guidance			il Gro		
Name	Variety	Seeding rates are pounds pure (PLS) per acre 3,4/ Native (N) or Introduced (I)	Season of growth	Northern Rio Grande Plain 83A Western Rio Grande Plain 83B					Maximum Seeding Dates 5/	Coarse	Moderately Coarse		Fine	
PERENNIAL GRASSES 1/, 2/ (Continued)														
Panicum: blue				ХХ					2/1-5/15 9/			ХХ		
Pappasgrass: pink, whiplash		2.5 N							2/1-5/15 9/		Χ	ХХ		
Rhodesgrass	Bell		W						2/1-5/15 9/	Χ	Χ			
Sacaton: alkali	common, Salado, Saltalk	1.0 N							2/1-5/15 9/			ХХ		Adapted to saline sites.
Sacaton: big		1.0 N	W	X X					2/1-5/15 9/			ХХ	X	
Sorghum almum		12.0 I	W	X X					2/1-5/15 9/			ХХ	X	CS Weak perennial, Cover depth is 1/4 - 1/2"
Switchgrass	Alamo	2.0 N							2/1-5/15 9/	Х		ХХ	X	
Switchgrass	local harvest	3.5 N							2/1-5/15 9/	Χ		ХХ		
Vine-mesquite		6.0 N							2/1-5/15 9/		Х	ХХ	X	
Wildrye: canada		10.0 N							9/1 - 11/1		Х	ХХ	X	Cover depth is 1/4 to 1/2 inches.
Wildrye: virginia	·	10.0 N	С	X X					9/1 - 11/1		Χ	ХХ	X	Cover depth is 1/4 to 1/2 inches.

Appendix 1c - Plantii	ng rates for drill or h	roado	ast	Se	edir	ng a	nd s	nri	aair	na ii	n Teyas 7	'n	16 2	2 N	ИΙ	R	Δ's 83Δ and 83B
Appendix 10 - Flantin	ig rates for drill or b	-	Jast		Ad	aptati	on by source	Majo	or Lan		Seeding Guidance	A	dapt	ed Pl	lant	ts	A 3 OJA and OJD
Name	Variety	Seeding rates are pounds pure live seed (PLS) per acre 3/, 4/	Native (N) or Introduced (I)	Season of growth	Western Rio Grande Plain 83B						Maximum Seeding Dates 5/	Coarse	Moderately Coarse	Medium	Moderately Fine	Fine	
PERENNIAL FORBS, LEGUMES, SHRUBS 1/, 2/																	Comments
A 17 17												\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					
Alfalfa		4.0			( X	-	$\vdash$	+	++		9/1 - 11/1	Х		X :		-	CS May be planted 2/1 - 4/1 with warm season mix
Awnless bushsunflower		2.6	N V	N X	X			-	++		2/1- 5/15 9/	-		Χ .		,,	M. J. J. 1014 414 331
Engelmanndaisy		15.0				_	₽₽		++	-	9/1 - 11/1	· ·		X :			May be planted 2/1 -4/1 with warm season mix
Fourwing saltbush		15.5 10.0				_	₽₽		++	-	2/1-5/15 9/	X	X		_	X	Normal row rate is 6 lb/ac PLS
Gayfeather: dotted Illinois bundleflower			N V						+		2/1-5/15 9/ 2/1-5/15 9/	Х	X		X X	<del>•</del>	
Leucaena	L. leucocephala	7.0			( X				+		2/1-5/15 9/	1^			x	^	May freeze in northerm part of MLRA 83.
Maximilian sunflower	L. leucocepilala		N V						+		2/1-5/15 9/	1		X		V	May neeze in normenn part of MERA 65.
Menodora: showy		8.0							+		2/1-5/15 9/			X			Adapted to shallow, rocky sites
		3.4				-	H		++	-	2/1-5/15 9/	_		X :		-	Adapted to strailow, rocky sites
Orange zexmenia Annual Grasses 1/ 2/		3.4	IN V	V /	<del>\</del>   ^	-	$\vdash$	-	++	-	2/1-3/13 9/	┪^	^	^	^	ŀ	
		48.0	1 (	, ,	( X	v -	$\vdash$	-	++	-	9/1 - 11/1	1	~	X :	<del>-</del>	~	CS
Barley Bromegrass	Matua	30.0			( X	^					9/1 - 11/1						Weak perennial that acts as an annual. Very high water requirement. Cover depth is 1/2 to 1.0 inches.
Forage Sorghum: grass types		10.0			( X			l			3/15-8/15	х					CS Cover depth is 1/2 to 1.0 inches.
Forage Sorghum: others		15.0			( X				$\top$		3/15-8/15	_	-				CS Cover depth is 1/2 to 1.0 inches.
Grain Sorghum		15.0			( X				11		3/15-8/15			X			CS Cover depth is 1/2 to 1.0 inches.
Hegari		15.0			( X						3/15-8/15	Ī		Χ :			CS Cover depth is 1/2 to 1.0 inches.
Millet: browntop		15.0			( X				$\dagger \dagger$		3/15-8/15		_		_	_	CS Cover depth is 1/2 to 1.0 inches.
Millet: foxtail		15.0			( X				$\dagger \dagger$		3/15-8/15	Х	Х		X	_	CS Cover depth is 1/2 to 1.0 inches.
Millet: japanese		15.0			( X				$\dagger \dagger$		3/15-8/15	Ė	Ħ		_		CS Cover depth is 1/2 to 1.0 inches.
Millet: pearl		15.0			( X				$\dagger \dagger$		3/15-8/15	l	Х		_		CS Cover depth is 1/2 to 1.0 inches.
Millet: proso		15.0						T	11		3/15-8/15	T					CS Cover depth is 1/2 to 1.0 inches.
Oats		48.0	ı (	) X	( X				11		9/1 - 11/1	T					CS Cover depth is 1/2 to 1.0 inches.
Panicum, Texas		3.5						T	11		2/1 - 5/15	Х		X	_		•
Rye		42.0	1 (	: İx	( X				11		9/1 - 11/1	Ħ					CS Cover depth is 1/2 to 1.0 inches.
Spelt		30.0			( X			$\top$	11		9/1 - 11/1	1	X	Х	X	Х	CS Cover depth is 1/2 to 1.0 inches.
Triticale		40.0			( X			$\top$	11		9/1 - 11/1	T					CS Cover depth is 1/2 to 1.0 inches.
Wheat		50.0			( X		T	1	$\top$		9/1 - 11/1	1					CS Cover depth is 1/2 to 1.0 inches.

		3/4/	ব		tation b		Seeding Guidance				Plan		
Name	Variety	Seeding rate lb. PLS per acre	Season of growth	Western Rio Grande Plain 83B			Maximum Seeding Dates 5/	Coarse	Moderately Coarse	Medium	Moderately Fine	Fine	
ANNUAL FORBS, LEGUMES 1/, 2/													Comments
Barrel medic	Jemalong, Parabinga		СХ	(			9/1 - 11/1		Х	Х	Х	Х	cs
Black medic		3.0	СХ	(			9/1 - 11/1		Х	Х	Χ	Χ	CS
Bur medic: grain	Armadillo	3.0 I C	СХ	(			9/1 - 11/1		Х	Х	Χ	Χ	
Button medic		10.0 I	СХ				9/1 - 11/1			Х	x	Х	cs
Cowpeas		30.0 I V	W X	( X			3/15 - 8/15	Х	X	Х			cs
Guar		12.0 I V	W X	( X			3/15 - 8/15		Х	Х	Х		CS Cover depth is 1/2 to 1.0 inches.
ablab		10.0 I V	W X	( X			3/15 - 8/15	Х	Х	Х	Χ	Χ	CS Cover depth is 1/2 to 1.0 inches.
Partridge pea		13.4 N V	W X	( X			2/1 - 5/15	Х	X	Х			cs
urplebean	Siratro, DQ Pea		W X				3/15 - 8/15	Х	X	Х	Χ	Χ	cs
Sesame		5.3 I V	W X	( X			3/15 - 8/15		Х	Х	Χ	Χ	cs
Sunflower		5.0 N V					3/15 - 8/15		X				CS Seed 8/15-11/15 if seed has not been cold treated.
Sunflower	Perodovic	15.0 I V		( X	1	1 1	3/15 - 8/15			1	Х		

Appendix 1c - Planti	ng rates for drill or b	roadcas	st s	seedi	ng a	nd s	pria	ain	a in	Texas. Z	on'	e 2	2. N	/LF	R/	A's 83A and 83B
дреник те - гани	Ing rates for drill or b	14/		Ac	aptati	on by	Major Areas	Land		Seeding Guidance	Ad	apte Soi	ed PI I Gro	ants	5	A S OSA dilu OSB
Name	Variety	Seeding rate lb. PLS pe Native (N) or Introduced	Season of growth	Northern Rio Grande Plain 83A Western Rio Grande Plain 83B						Maximum Seeding Da	Coarse	Moderately Coarse	Medium Modorately Eine	Fine	Đị L	
ANNUAL FORBS, LEGUMES 1/, 2/ (Continued)																Comments
Sweetclover: White	Hubam	3.4 I	С	ХХ						9/1 - 11/1	Х			<b>(</b> )	X I	CS
Sweetclover: Yellow	Madrid			X X						9/1 - 11/1	Х	Х	X X	< X	X I	CS, biennial
Vetch: hairy				X X						9/1 - 11/1		_		( X		
Winterpeas: austrian		35.0 I	С	X						9/1 - 11/1		Χ	X	( X	Χ	CS

## **FOOTNOTES**

- 1/ Species are listed by common name and where applicable by released cultivar or variety.
- 2/ Locally harvested seed may be used when seeding species of unknown or common variety. Locally harvested seed should have its geographic origin within 200 miles north, 300 miles south, 100 miles east and 200 miles west of the site where it will be planted.
- 3/ Seeding rates are listed as PLS (Pure Live Seed) unless otherwise indicated in the comments column as commercial seed (CS). To compute PLS from seed analysis information: %PLS = [% germination + %hard (dormant) seed] X % purity. Seeding rate in PLS pounds divided by %PLS will provide the bulk seeding rae needed to get the correct amount of Pure Live Seed.
- 4/ Drill planting is defined as rows spaced less than 20 inches apart. Row plantings will be 1/3 of drill rates unless otherwise noted. Seeding rates of perennial species may be increased up to two times the rate listed if warranted by specific site conditions.
- 5/ The optimum planting depth for all species is 1/8" 1/4" unless otherwise noted.
- 6/ Soil groups are based on the following textures: Coarse coarse sand, sand, fine sand, loamy coarse sand, loamy sand, loamy fine sand and loamy very fine sand; Moderately Coarse sandy loam, coarse sandy loam and fine sandy loam; Medium very fine sandy loam, silt loam and silt; Moderately Fine clay loam, sandy clay loam and silty clay loam; Fine sandy clay, silty clay and clay.
- 7/ Conversion Factors: 3.5 bushels of tops = 1 bale; 7 bushels of sprigs = 1 bale; 1.25 cubic feet = 1 bushel; 15 pounds = 1 bushel.
- 8/ The TZ (tetrazolium salt) test can be used for the germination factor in figuring PLS if the dealer furnishes the seed tag or other proof that the test was performed by a reputable seed lab.
- 9/ May also be seeded 8/15 9/30 providing soil moisture conditions at planting are favorable.